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Physics

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Page

A. 1. a) False

b) True

c) False e) True

d) False

e) True

2. a) metre, second, kilogram

b) temperature

c) 1000

d) ice

e) clinical

f) 37,986

g) mass.

3. a) a-iv

b - vi

c - ii

d-i

e-ii

f-v

4) a-i

b-i

c-ii

d& iii

e-ii

B.1. We measure the length, weight, mass, time and temperature that we measure is called measurement.

The measurement is a comparison of unknown quantity with a known fixed quantity of same kind.

2. Length is the distance between two points and mass is the measure of

weight on a ~~things~~^{things} weight.

3. The four basic of measurement is length, mass, time and ~~temperature~~
~~the temperature~~.

4. The S.I. unit of :-

(i) mass - Kilogram (kg)

(ii) length - Centimetre (cm)

(iii) time - Second (s)

(iv) temperature - Kelvin (K)

5. 1 metre is divided into 100 parts.

The S.I. unit of length is centimetre

The multiple - Kilometre (1 km = 1000 m)

The submultiple - 1 centimetre (1 cm = $\frac{1}{100}$ m)

or 10^{-2} m

2) Millimetre (1 mm = $\frac{1}{1000}$ m or 10^{-3} m)

6. a) 1

b) 30.48

c) 0.2

d) 420

e) 200

f) 2

g) 0.91

~~7(a)~~ You can measure by ruler or
~~tapes~~



b) The reading on ruler at the end x
is 1.0 cm and at the end y is 4.3 cm

so the length of the rod X is 4.3 cm

$$- 1 \cdot 0 = 3.3 \text{ cm.}$$

8) Tapes are used to measure perimeter of playground. To measure the perimeter it needs 2-3 people to measure it. The persons will hold an end and the other persons will hold another end.

No, because

9-a) The A position measures ~~34 mm~~ 34 mm, The B position measures 3.2 cm and C position measures 3 cm.

b) B is the correct positions of eye and the length of stick is 3.2 cm.

10) The weight of a body is the quantity of matter contained in it called Mass.

i) The S.I. unit of mass is kilogram.

ii) The C.G.S of mass is gram.

(iii) The F.P.S of mass Pound.

11.

a) $2500 \text{ kg} = 2.5 \text{ metric tonne}$

b) $150 \text{ kg} = 1.5 \text{ quintal}$

c) $10 \text{ lb} = 4.5359 \text{ kg}$

d) $2500 \text{ g} = 2.5 \text{ kg}$

e) $0.01 \text{ kg} = 10 \text{ mg}$

f) $5 \text{ mg} = 5 \times 10^{-6} \text{ kg}$

13. One Kilogram is equal to 1000g. The S.I. unit of mass is kilogram and

$$1 \text{ metric tonne} = 10 \text{ quintal} = 1000 \text{ kg}$$

$$= 1,00,000 \text{ g}$$

14. The S.I unit of time is ~~Kelvin~~ second
and one second is $\frac{1}{86400}$ part of
a solar day. $60\text{ second} = 1\text{ minute}$ and
 $60\text{ minute} = 1\text{ hour}$ and $24\text{ hours} = 1\text{ day}$
and $365\text{ day} = 1\text{ year}$.

15. Stop clock and stop watch are
two devices measures short time
interval.

16. (i) 105 s

(ii) 18125 s

17. The temperature measures an object
that is cold or hot.

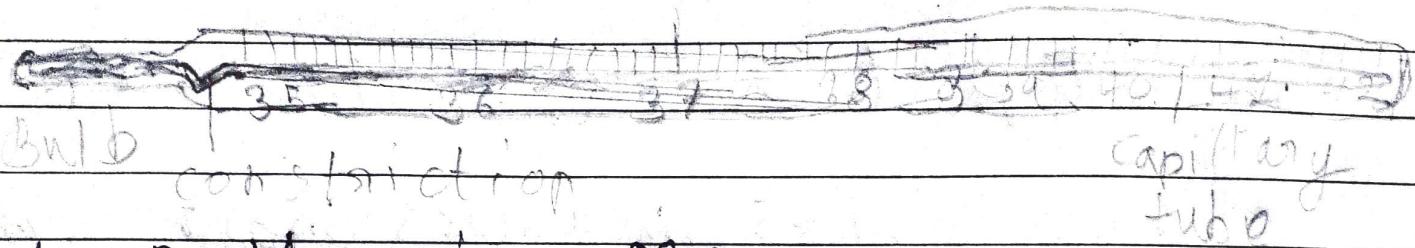
+80°

18(i) The S.I. unit of temperature is
kelvin (K)

(ii) The most commonly unit of temperature is

Celsius (c)

19. Clinical ~~instrument~~ thermometer is used to measure the temperature of a persons body.



20. i) melting ice - 0°C

ii) boiling water - ~~0~~ 100°C

21. Clinical thermometer is used in lab

to measure temperature of an object

22. Persons normal temperature is below

The 37°C . It is indicated a person

temperature below the red arrow degree.

23. No, because it ~~has~~ a is used to measure of person temperature.

24. every object has a surface like a brick, a matchbox, a leaf, a piece of paper etc.

25. The S.T. unit of area is square metre or metre². One square metre is the area of a square of each side of 1 metre.

26. (i)

$$26.(i) \text{ i) } 1 \text{ square yard} = 1 \text{ yard} \times 1 \text{ yard}$$

$$= 0.9144 \text{ m} \times 0.9144 \text{ m}$$

$$= 0.836 \text{ m}^2$$

$$\text{ii) } 1 \text{ hectare} = 100 \text{ metres} \times 100 \text{ metres}$$
$$= 10000 \text{ metres}^2$$

$$\text{iii) } 1 \text{ km}^2 = 1 \text{ km} \times 1 \text{ km}$$

$$= 1000 \text{ m} \times 1000 \text{ m} = 10^6 \text{ m}^2$$

$$\text{iv) } 1 \text{ cm}^2 = \frac{1}{100} \text{ m} \times \frac{1}{100} \text{ m} = \frac{1}{10000} \text{ m}^2$$
$$= 10^{-4} \text{ m}^2$$

$$\text{v) } 1 \text{ mm}^2 = \frac{1}{1000} \text{ m} \times \frac{1}{1000} \text{ m}$$

$$\cancel{= \frac{1}{1000} \text{ m} \times \frac{1}{1000} \text{ m}} = \frac{1}{1000} \text{ m} \times \frac{1}{1000} \text{ m}$$
$$= 10^{-6} \text{ m}^2$$

27(i) I will take all Sq.m because it is a regular shape

ii) I will take full squares than ~~more than~~ ^{half squared} and half square and

I will ignore the less than half square because it is a irregular shape.